Sunshine and showers? – a challenging forecast

Description

“And today we will see a mix of sunny spells and scattered showers” says the weather forecaster on the TV, as you get ready for work.

This is certainly a phrase that you will hear used quite a lot during the summer but, despite its easy tone and clever alliteration, it is one of the most challenging forecasting tasks that a forecaster will come across.

Sunshine and showers – on a countrywide scale this is relatively easy to visualise, and taking a broad brush we are likely to be spot on. But what really matters, of course, is whether you get soaked by one of the showers or if you stay dry and warm in the sunshine. Now, that is more difficult to predict and where the challenge really begins.

Let’s look at some statistics. The UK covers 246,610 km sq. The average shower covers around 1 km sq and may cover about 64 km in an hour as it travels across the country before dying away. So the average shower only covers 0.026% of the UK landmass in its 60 minute lifetime.

So, the crux of the matter for the forecaster is which 64 km sq of the UK is going to see that shower, and when.

This kind of detail is quite difficult to forecast, but is exactly what most of us are interested in during the summer. There is a massive difference between a cool, showery day and a sunny, warm day when you are out and about.

Now let’s be honest, we are good at forecasting severe winter storms, which is a vital part of what we do. We are also excellent at predicting a change from cold and snowy to dry and sunny, or in this instance to ‘sunshine and showers’. In other words we are very good at forecasting the **overall picture** up to a week ahead, and in winter that’s all that matters to most people.

However, in summer it’s the detail that really matters. In summer when the weather is relatively quiet it’s the local effects of the hills and valleys, land and sea and subtle variations in heat and moisture that dominate what weather we will see. Will the showers be inland or on the coast? When will the grey mist and fog clear to let the hot sun through? In summer these differences can make or break your picnic.

Yes, our four-day forecast is overall as good as our one-day forecast was 30 years ago, but we know that everyone wants to know what the weather will be like in their postcode when they walk out of the door in the morning, and advances in the science and technology at the Met Office are now tackling this issue.

As a result, we now provide local weather forecasts for around 5,000 different towns and cities across the UK. These are updated more frequently through the day, providing a fuller picture of what the weather is doing. These forecast are available on our website; through your mobile phone or smart

phone, or via our widget on other websites – keeping you up-to-date with the weather.

Date Created
June 2011

Met Office in the Media: 27 June 2011

Description

Following an exclusive visit by Clive Cookson, Science Editor at the **Financial Times** to the Met Office earlier in the Month the FT Weekend Magazine ran "So will it rain tomorrow?". This explores the role of the Met Office in providing weather forecasts to the nation, focusing on the people and technology that make it all happen.

Along with this, Katie Knapman of **BBC Countryfile**, reported from the Met Office at Middle Wallop, where we serve the Army Air Corps with forecasts in support of their training. Within the piece :Katie Knapman points out that:

> "Our army helicopters might never get off the ground if it wasn't for the Met Office so where better to come for a lesson in weather forecasting,"

Katie also points out that in regard to our forecast service that "Lives depend on it", "Met Office forecasting is critical" and that the Met Office team of forecasters are "Key to the safety of our pilots in the armed forces".

The feature on the Met Office is available on BBC iPlayer and runs from 30 to 37 minutes into the programme.

The **hot weather** in parts of the UK this weekend is also causing a lot of interest. Ahead of the weekend we forecast that the hottest weather would peak across parts of East Anglia, the East Midlands and south east England during today.

As forecast. the weekend saw quite varied weather across the UK, with some places having unsettled conditions and temperatures reaching the low 20s, whilst parts of the south and east had warm and sunny weather with early mist and fog.

Chief Forecaster at the Met Office, Andy Page, added: "There is a 60% chance of some places in East Anglia, the East Midlands and south east England reaching 30 °C on Sunday and Monday. However, it is important to note that not all places will see the hot weather. Cooler weather is expected to spread across all parts of the UK by the middle of next week."

A thundery breakdown is expected across eastern parts this evening with fresher conditions across many areas tomorrow.

Date Created
June 2011

A year in the life of the Met Office

Description

The Met Office's Annual Report and Accounts for this year have now been published and are available to view on our website.

Detailing our financial performance and business achievements from April 2010 to March 2011, they tell the story of another busy year in the world of weather in which the Met Office has marked considerable achievement.

For the second year running, the Met Office has exceeded all of its Business Performance Measures, including its weather forecasting targets and business profitability.

Despite difficult economic conditions, we returned £8.2 million (up from £4.5 million in 2009/10) as a dividend back to our owner, the Ministry of Defence. The majority of our growth has been in commercial revenue streams, increasing by £2.9M to £32.2M. Overall, our staff numbers have decreased slightly on last year.

This business performance was achieved while reducing our impact on the environment, as we marked a reduction in our greenhouse gas emissions over the previous year.

We have widened the services we offer, too. We increased the number of location forecasts we provide in the UK from 480 to 5,000, so people can get a forecast closer to home. We have added even more resources to our website and have continued to extend and improve our smartphone forecast apps, helping to make our iPhone app one of the top five most popular in the UK. This all means people can get the information they need, when they need it.

The range of our products and services has increased as has our forecasting quality, allowing us to support UK businesses to maximise their impact and to help with UK economic growth.

We have responded to a range of events over the year, starting with the Eyjafjallajökull volcano eruption in Iceland. Here we responded quickly and efficiently to meet the changing requirements of regulators and the airlines. The year also saw some extreme weather across the world, including record-breaking temperatures and widespread monsoon flooding in Pakistan; heatwaves and wildfires in Russia; flash flooding and mudslides in China: and drought, followed by flash floods, in Niger. In Japan, the devastating series of earthquakes, tsunami and nuclear events also provided challenges.

In each of these events, we worked very closely with our customers and international counterparts to offer assistance whenever and wherever we were needed.

In the UK there were more weather extremes, as the winter marked the coldest December for 100 years – with temperatures struggling to get above freezing during the day and regularly falling to below -10°C and -20°C overnight.

It is a source of pride to us that the Met Office continues to be very highly trusted by the British people

and that we are respected for our expertise. They rely on the information we provide, and particularly trust us when it counts. This was in evidence during the heavy snow, when we dealt with unprecedented demand – recording 19 million hits on our website.

We accurately forecast 12 of the 13 big weather patterns that blasted the UK last winter and 80% of people surveyed said they were aware of the warnings we put out and 95% of those found the warnings useful.

Over the year ahead, we're looking forward to continuing our hard work to serve our customers, provide value for money and build on our reputation as one of the most respected forecasters in the world.

The report: http://www.metoffice.gov.uk/media/pdf/h/l/ARA2011.pdf

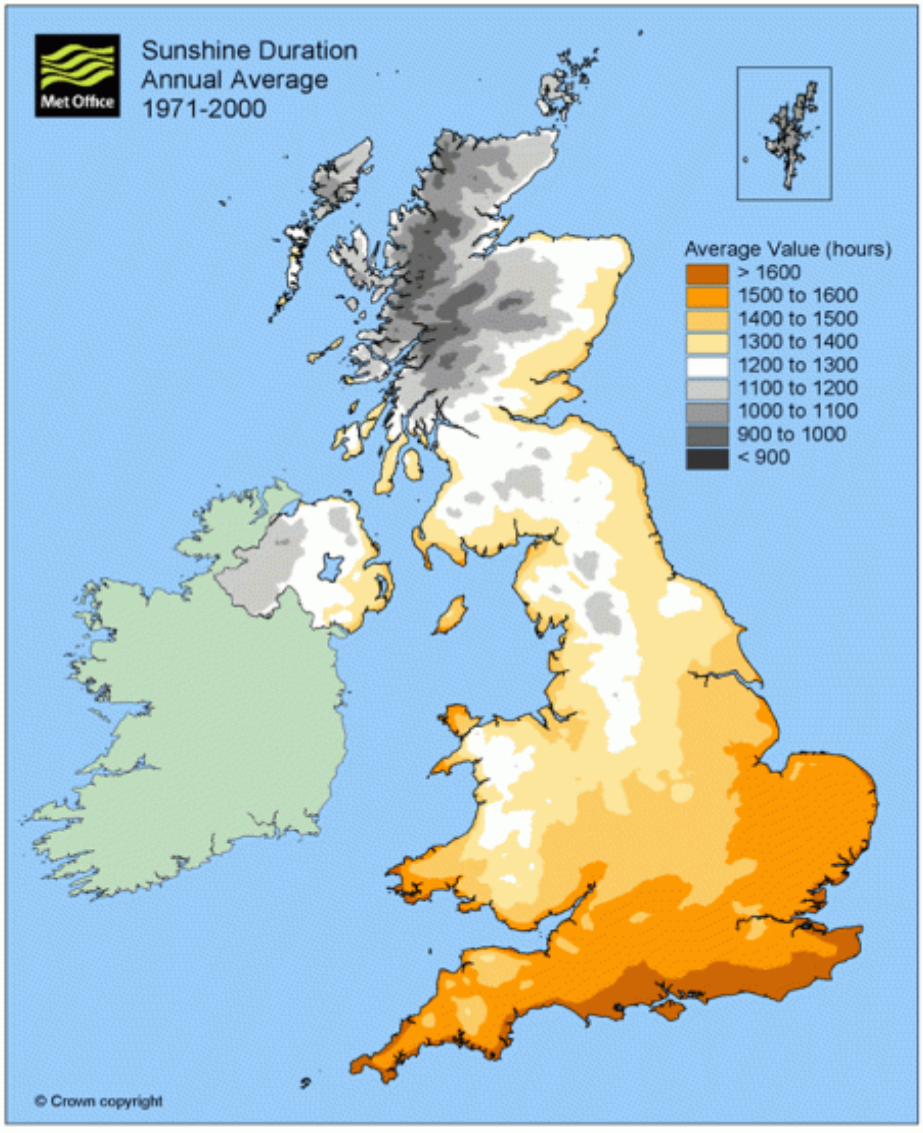
Date Created
June 2011

Met Office in the Media: 23 June 2011

Description

Following a release from E-ON, using date from the Met Office website – Bognor Regis has been crowned one of the sunniest place in Britain.

After studying data from the Met Office, West Sussex has emerged as one of the UK's sunniest places to live, with 1,902 hours of sunshine every year. The south coast of England fairs well in the sunshine stakes and the map below highlights some of the sunniest parts of the UK.



Map showing annual sunshine hours for the UK

Steven Norman, Renewable Energy Consultant at the Met Office, said: "The Met Office is the primary

source of weather information across the UK and our figures dating back many years show that the UK is a far sunnier place than people might think. For those wanting to find out more about whether solar energy generation would work in their area, we provide a range of services. This includes data sets and maps on solar radiation for your area."

As both Wimbledon and Glastonbury continue, there is widespread coverage of our forecasts. Both the Daily Mail and GigWise are supporting festival goers by embedding our YouTube forecasts into their stories, ensuring that revellers have access to the latest forecast so that they can make the most of the festival. Yesterday at Wimbledon, as expected several hours play was lost due to rain. Showers are forecast again today with a 60% risk of showers interrupting play. Of course this means there is still a 40% chance that play won't be interrupted. Later in the evening it looks like the shower risk will decline leaving a drier end to the day.

Date Created
June 2011

Met Office in the Media: 20 June 2011

Description

As Wimbledon got underway , as expected the day started fine and bright, but cloud increased through the afternoon and as forecast brought rain by the end of the afternoon. As expected play was suspended due to rain around 5pm. The referee and ground staff however knew just what to expect with “an ace up their sleeve in predicting the weather” – The Met Office have forecasters on site to support the championships as explained in the Daily Mail today:

> “The All England Lawn Tennis Club has an ace up its sleeve in predicting the weather, however.
>
> “Incoming rain will be signalled by the gentlemanly tones of the voice of Wimbledon, Tony Adamson.
>
> “It would be tempting to imagine the silver-haired veteran of the world’s favourite championships simply wandering outside his office, glancing at the heavens and holding a moistened finger in the air.
>
> “Alongside him, however, in a small, first-floor room near Centre Court, is a Met Office forecaster with a laptop – and access to the most sophisticated weather information and technology available.
>
> “From 200 miles away at Met Office headquarters in Exeter, all the data needed for Wimbledon to decide whether to operate the roof, man the covers (or evacuate the players two by two in an ark) is pinged to on-site forecasters.
>
> “Then it is turned into English, passed down the line, and presented to the decision-makers – championship referee Andrew Jarrett and head groundsman Eddie Seaward.
>
> “They get a long-range and daily forecast, at least 30 minutes warning that rain will definitely fall, and several hours if it’s likely.”

The video below shows how we support the Championships with our on-site forecasters.

Date Created
June 2011

New show for BBC One taps into our weather obsession with the help of the Met Office

Description

'The Great British Weather' is a new and live 4 part series for BBC One scheduled to be broadcast this summer. The **Met Office** have been working very closely with Love Productions, who are making the series for BBC One, providing expert scientific and meteorological advice, support and guidance into the making of the show.

The show is to be presented by Carol Kirkwood (Met Office), Alexander Armstrong (Have I got News for You, Armstrong and Miller) and Chris Hollins (BBC Breakfast, Watchdog) alongside veteran weather presenters John Kettley, Michael Fish MBE and Bill Giles OBE and meteorologist Tomasz Schafernaker, all of whom worked for the Met Office as meteorologists when presenting the weather on the BBC.

The Great British Weather is an interactive live series set to tap in to the nation's obsession with weather, as we find out which clouds mean we should dig out our brollies and where to head for the most sunshine in Britain. It also helps to answer our
annoying weather questions, does it really rain cats and dogs – or does it actually rain frogs? Does red sky at night really mean shepherd's delight? Why are there so many types of clouds and why are they so different?

We will see Chris Hollins get up close and personal with the Basking Shark in Cornwall, all in aid of discovering why this enormous creature is attracted to the Gulf Stream.

Carol Kirkwood will also report on the weather, not from the safety of a BBC Studio – but from 15,000 feet in the air as she paraglides into the heart of an enormous Cumulus cloud. How vast is it? How much does it weigh? What does it taste like? Carol gets her head in the clouds to find out.

Specialist Meteorological Reporter, Tomasz Schafernaker will also join the *The Great British Weather* team across the country as they visit Cornwall, the Lake District and Greenwich (London) on its tour with a live and local audience at each destination.

Date Created
June 2011

A look ahead to the weather at Wimbledon

Description

All eyes will be turning to the sky in SW19 as the Wimbledon Championships get underway on Monday.

Met Office forecasts currently indicate that rather wet and windy weather is expected on Monday. Beyond that the recent changeable conditions are likely to continue, with a mixture of showers and some sunshine for the rest of the first week.

Andy Page Met Office Chief forecaster said: “Unfortunately, after several years of mainly dry Wimbledon fortnights, this year’s tournament is likely to see more unsettled conditions, with rain at times.”

The Met Office will be providing a range of forecasts for Wimbledon including:

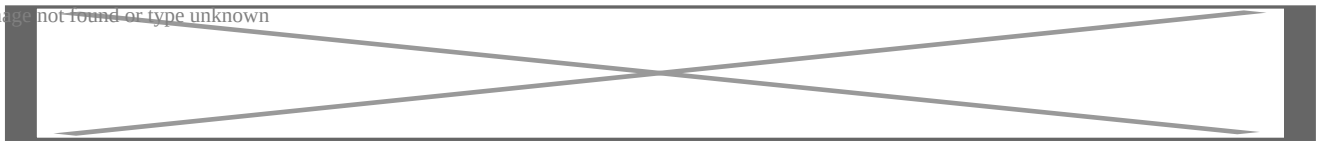
- Our special Wimbledon Events page that enables visitors to view the forecast up to five days ahead.
- Latest weather updates on our Twitter and Facebook pages throughout the championships.

Glastonbury also gets underway from Wednesday next week, with the unsettled theme to the weather expected across the festival site too. As well as our Glastonbury Festival page we will have festival weather forecasts on our YouTube channel from Tuesday.

Date Created
June 2011

Met Office strikes ‘Gold’ for corporate responsibility

Description



The Met Office is delighted to announce that it has achieved Gold in Business in the Community’s (BITC) 2011 Corporate Responsibility Index (CRI), the UK’s leading voluntary benchmark of corporate responsibility.

Achieving Gold means that the Met Office is able to demonstrate openness and transparency through effective public reporting of its material environmental and social issues, programmes and performance.

Rob Varley, Met Office Operations Director said: “Our work as a leading advisor on weather and climate change to Government, businesses and the public is central to promoting sustainable development both at home and abroad. We’re committed to meeting our objectives in a sustainable way, which means minimizing our environmental impact and acting in a positive way in our dealings with our community, our workplace and within the marketplace.”

The CRI helps companies to integrate and improve corporate responsibility throughout their business operations, by providing a systematic approach to managing, measuring and reporting on business impacts in society and on the environment.

Stephen Howard, Chief Executive, Business in the Community said: “I congratulate the Met Office on achieving Gold in the 2011 BITC Corporate Responsibility Index. It is a challenging time, but the results of this year’s Index demonstrate that companies are still focused on transforming their businesses in order to have a positive impact on society. All the companies who participated this year are at different stages in their responsible business journey, but they are all taking these issues seriously and are prepared to lead by example.”

The full results of the 2011 CRI, including commentary and analysis, were published in the Financial Times Responsible Business supplement.

Date Created
June 2011

Met Office at Scottish wind energy conferences

Description

Wind farm site search and selection, development and operations can all be supported by the Met Office

Met Office experts will be presenting new ways to maximise wind farm investment at wind energy conferences in Scotland this week in light of the volatility of wind resource over the last year.

Weather patterns, and crucially wind speeds, underpin the success for this type renewable energy. The severe gales experienced in Scotland last month coupled with the generally lower than average wind speeds experienced over the last year demonstrate the challenges of wind as a renewable energy resource.

However, the Met Office can make a difference to the success of wind farms from site search and selection, development through to operations with a suite of innovative products aimed directly at the renewable energy sector including:

- Virtual Met Mast – our site-specific wind analysis model-based tool
- VisualEyes – an intuitive, web-based weather alert system designed in conjunction with the industry to help manage wind farm assets.

Tony Duffin, Regional Manager (South West) for Partnerships for Renewables said: “We have been working closely with the Met Office team using Virtual Met Mast for about two years now and we are very happy with the results. We are confident that it adds value as a routine part of managing wind risk in the development of our sites.”

Virtual Met Mast allows businesses and investors to access specially produced wind assessments for both onshore and offshore sites including mean wind speed, wind direction, exceedance values, air density, wind shear and turbulence intensity in advance of a costly met mast installation.

Stephen Norman, Met Office Wind Energy Consultant said: “Virtual Met Mast has demonstrated that it

can take into account the variability of the British weather when determining the long term wind climatologies that are fundamental to establishing the return on investment in wind assets."

Investing in renewable energy

Providing clear and detailed information, Virtual Met Mast provides cost-effective and reliable site-specific analysis to help investors make the right decisions, based on world leading research and development from the Met Office which:

- Combines cutting-edge science and supercomputer technology
- Uses the Met Office's Numerical Weather Prediction (NWP) model, which incorporates observations from satellites, ships, aircraft, ground stations and radar as a foundation for generating site-specific wind farm assessments
- Employs a wide range of continuously monitored wind observations to produce a core wind analysis record (extending back over 20 years)
- Provides site-specific data at hub height for both onshore and offshore locations
- Allows outputs to be correlated with real met mast data to derive the ultimate value from your Virtual Met Mast assessment
- Provides a variety of essential statistics, including confidence figure.

Date Created
June 2011

The Shipping Forecast is set to music

Description

The Shipping Forecast, produced by the Met Office on behalf of the Maritime and Coastguard Agency has long been a vital source of information for sailors, but now it has also provided the inspiration for a new musical work.

Speaking to the BBC, composers Cecelia McDowall said that she had used elements of the rhythm and language found in the forecasts to create her composition. She added: “There’s something rather beguiling and mysterious about the Shipping Forecast which sounds so poetic, but at the same time is very crucial to people at sea.

The Shipping Forecast was first broadcast in 1922, but had been in existence in a number of formats before this as the Met Office provided a range of forecasts and gale warnings for mariners around the British Isles.

In fact, Admiral FitzRoy, founder of the Met Office, developed the first storm warning service, achieved by using canvas covered frames in different shapes to alert ships to dangers — these were lit up by fires at night so they could give warnings at any time. He also pioneered techniques for forecasting weather such as synoptic charts, where weather observations taken at the same time were drawn on a map to aid forecasting — a technique still used today. FitzRoy’s work laid the foundations for the Met Office’s future at the forefront of this ‘new science’.

In a video, the BBC’s Nick Higham finds out why the Shipping Forecast is such an important part of the British consciousness – helped by Met Office forecaster Steve Randall, Devon fisherman Geoff Ingram and Radio 4 announcer Carolyn Brown, and a P&O Cruises Capitan explains why it is so important to those at sea.

In the UK, the Maritime & Coastguard Agency (MCA) is responsible for the provision of Maritime Safety Information (MSI) to ships at sea, which includes the broadcast of warnings and forecasts. The Met Office initiates warnings and prepares routine forecasts for dissemination on behalf of the MCA.

Date Created
June 2011

Met Office in the Media: 14 June 2011

Description

The Met Office in partnership with NOAA continues to develop a partnership to respond to ‘space weather’ reports the Western Morning News in ‘Met Office in new move for space weather forecasting’ and the Independent in ”Controlled’ power cuts likely as Sun storm threatens national grid‘. This followed an announcement last month by UK Prime Minister David Cameron and US President Barack Obama about the growing partnership between the Met Office and the U.S. National Oceanic and Atmospheric Administration’s (NOAA) National Weather Service in working toward the delivery of space weather alerts.

The Daily Mail today report ‘Scorching summer weather set to be a washout’, in which a rather unsettled outlook is forecast by the Met Office. This is in contrast to forecasts provided by other forecasters in early June that said we were heading for a fine June. The Met Office refuted such ‘flaming June’ predictions came from us at the time – highlighting a change to more unsettled conditions, with a mix of rain or showers, separated by drier and brighter interludes, in the Daily Mail at the very beginning of this month.

Date Created
June 2011

Met Office Chief Scientist nominated for Public Servant of the Year in Women in Public Life Awards

Description

Prof.

Julia Slingo OBE has been nominated for Public Servant of the Year in Women in Public Life Awards 2011.

Her citation from the Women in Public Life Awards says:

> 'Professor Julia Slingo OBE is widely recognised as a world-leading scientist in her own right. Since February 2009 she has served as Met Office Chief Scientist providing inspirational leadership of science in the Met Office, and in the wider UK and international community. A leading authority on weather and climate science, she frequently speaks to her peers, the media and the public to promote a common understanding of the issues and impacts associated with natural hazards, weather and climate science. Her previous roles include Director of Climate Research in the National Centre for Atmospheric Science where she led climate research from UK academic institutions, and Founding Director of the Walker Institute for Climate System Research at the University of Reading. Julia is also the first woman to be President of the Royal Meteorological Society, a post she held since 2008.
>
> 'Julia is one of very few women to join the influential group of Government chief scientific advisers. Last year's volcanic eruption in Iceland and subsequent closure of European airspace provided a keen test of her leadership and communication skills, in providing the scientific advice underpinning the UK's response to the crisis. Throughout this rapidly changing event, she provided Government with expert advice on the distribution of volcanic ash across international airspace. She also provided the leadership needed to quickly implement new science to meet the changing requirements of the aviation community. Importantly, despite considerable pressure from the media and a number of understandably worried airlines, Julia ensured advice was impartial, evidence based and delivered with the highest scientific integrity. This has been acknowledged through a Select Committee enquiry. Julia's passion and drive for her science, and its impacts on people, is infectious. This passion is never more evident than when she is briefing and advising Government officials and politicians, or speaking in the media. In the last year she has, for example, appeared on BBC Newsnight and provided an authoritative voice for the Independent and Nature on a range of subjects including the flooding in Pakistan and Australia, and the cold

winter conditions in the UK. Recognising Julia's major role during an unprecedented year of global natural hazards, the American Geophysical Union invited her to deliver the prestigious AGU Frontiers of Geophysics keynote lecture to its annual conference in December 2010.'

The Awards celebrate women leaders in society and seek to recognise and promote the work of women in politics, business, the civil service and community leadership. The ceremony will take place on 13 September.

Date Created
June 2011

‘Flaming June’ forecasts not from the Met Office

Description

Several media outlets are reporting that we are likely to see a heatwave in June and in some cases throughout the summer. Some of the headlines attribute the June forecast to the Met Office.

These forecasts were based on comments from other forecasting organisations, not the Met Office. At no time has the Met Office said that the whole of June will be hot nor have we issued forecasts for Wimbledon and Glastonbury or a summer forecast.

This weekend (3-5 June) will be warm in many places at first, with top temps in the mid to high 20s. But we do expect it to cool down later and into next week.

The longer term 6-15 day forecast issued on the Met Office website on 1 June for the period up to the middle of June said:

> *The UK entering the new week rather unsettled with a cooler feel when compared to the first few days of June. Some sunny spells are expected, but also rain or showers, with rainfall most persistent and heaviest towards the north and west, giving slightly below average temperatures here. Meanwhile the southeast may become locally warm, with a risk of heavy or thundery showers, whilst the best of any dry weather more likely in the west. Later in the week, conditions look to remain unsettled, with showers perhaps turning heavy at times with a risk of thunder. It should remain rather cool for many, although again, perhaps warmer towards the southeast. Towards the end of the period, conditions continue rather unsettled with rain or showers, separated by drier and brighter interludes.*

Met Office weather forecasts for the next five days, 6 to 15 days ahead and 16 to 30 days ahead are available on the Met Office website.

Date Created
June 2011